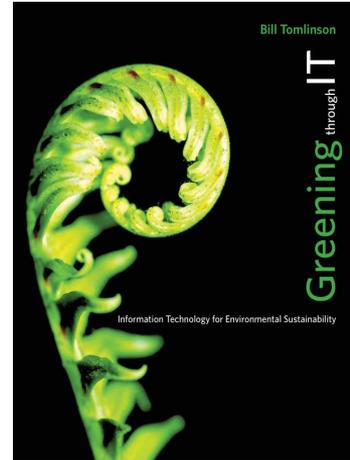
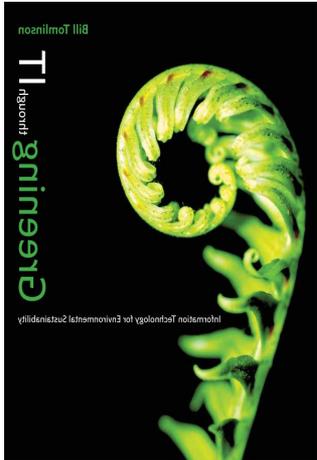


Greening through IT

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Presenters: Farhad, Robert



Introduction

Greening through IT is generally making other practices more sustainable via IT.

Can also include increasing sustainability of IT itself
(**Green IT**)

- This book seeks to provide a framework for thinking about IT systems that address environmental topics
- Helps people to work more effectively to address the numerous environmental concerns currently facing the planet



Chapter 1 - Introduction to Green IT

- The field of Green IT brings together two areas, environmental issues and IT, and explores the ways in which they connect to each other.
- Examines the opportunities for IT to address issues related to the global ecosystem
- **Green IT** bridges the horizons through EHCC (Extended Human Centric Computing)
 - Time: Postpones satisfaction of current desires to prevent global climate disruption
 - Space: Involves all nations in meeting environmental challenges
 - Complexity:
 - Social complexity: enables people to take action within groups rather than individuals
 - Disciplinary complexity. Collaborates with different fields (engineering, arts and human sciences)

Chapter 2 - Environmental Horizons

“Unmitigated climate change would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt”



- Environmental problems include population growth, resource consumption, waste production, species extinction...
- All them are interrelated, a concern affects or is affected by other(s)
- Population growth is a complex problem
- Proactive actions needed sooner



Chapter 3 - Human Horizons

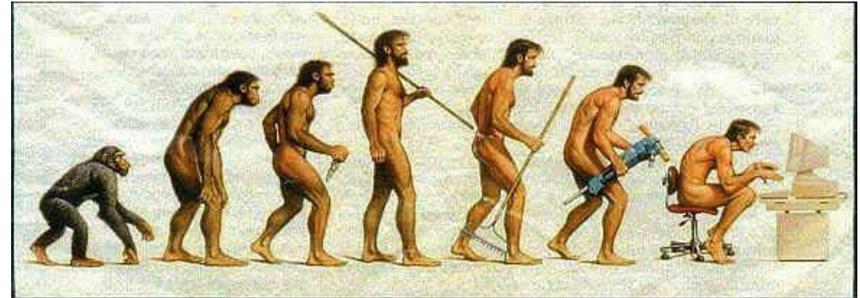
- What is needed for change? **Will, infrastructure & policies.**
- Coefficient of **relatedness**. We care more for people/species closer to us.
- **CEOs** work for **shareholders**, **Ecological incentive** increases only with **demand**.
- Demand **increases only** when **living well** \implies **raise standard of living.**
- **Educate**, since **birth rate** is correlated to education level.
- **Common currency of measurement**, currently **only CO2**
- Individual **concern** developed via **direct experience**, **learning** and **social support**



Chapter 4 - The Roles of Technology

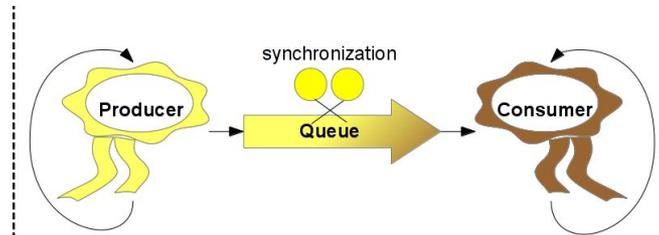
- Technology has helped us adapt to the environment, it is a powerful force
- Become integral part of our cultural system
 - Still has many benefits, but many detrimental social & environmental effects
- Good or bad? It depends on “how people use it”.
 - In general gives us more free time, encouraging innovation & creativity. Improves living standards
- Direct impacts, second-order impacts (enabling effects), third-order effects (due to behavioural change)
- Potentially may help more than...

...harm



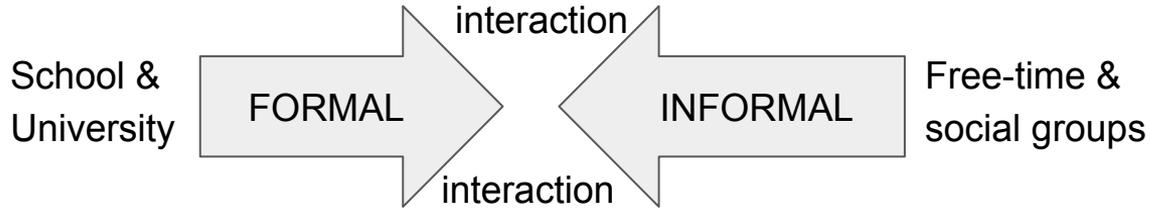
Chapter 5 - Survey of Green IT systems

- ❖ Second-order impacts: Can be applied in different domains -> Universality of IT systems;
- ❖ Third-order effects: Producers or providers with consumers of goods and services should consider needs of each other;



- ❖ The Paradox of Green Consumerism - Capitalism, Consumption-based society, Greenwashing
- ❖ Do we need another economic system to achieve global sustainability?

Chapter 6 - Education...



Environmental learning can occur in both formal and informal context



...and the Role of IT

- Demonstrating things by simulation
- Compress and expand both time and space
- Having immediate results
- Provide interaction

Chapter 7 - Green IT and Personal Change

- Behaviour: Personal & Cultural
- 3 different effects:
 - Direct and indirect environmental benefits
 - Changing the person's quality of life
 - Influence on social partner
- IT to help people track and justify personal change
- We need not only informations about our impact but also support for implementing changes



Chapter 8 - Collective Action

- Pledgebank - “I will change only if someone else will join”
- Sense of larger effect and not being alone
- Social networks (green dating)
- Transmission of ideas (P2P & vertically between generations)
- Inspire specialization (outsourcing of decisions)
- Sustain group action by motivating each other
- Transfer of experience via preservation, propagation, presentation mediums



Chapter 9 - Ways forward

Unsustainable trajectory

- Too many resources consumed, waste produced

2 ways of change

- Continuous gradual change
 - Personal change & broad social adoption
- Discrete quantum transformation
 - Dramatic social transformations

Gradual change may not be enough - most time-scales @ 1~10 years

Conclusion

- Complexity and **scale** of **Time** and **Space** affect degree of care
- Green IT can empower and increase awareness
- Still **need to change** much of **society**, Greening through IT or Green IT **will not** solve anything by itself

Questions!

Q: So is the book actually good?



- It's not bad. Quite interesting. Some explanations repeat or quote other parts within the book, but they might make it easier to start reading in random chapters.